Technical Evaluation Report

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1.0   INTRODUCTION

This HFM Symposium represents the penultimate activity of four years of engagement within the NATO research community on the topic of Stress and Psychological Support in Modern Military Operations (Human Factors and Medicine-081 RTO Task Group, HFM-081\ RTG). The symposium's title, Human Dimensions of Operations: Military Leaders' Strategies for Addressing Stress and Psychological Support, reflects one of the main objectives of the working group: to develop a training booklet for junior military leaders to assist them in managing the stresses of operations on their troops. A tool like this will prove of enormous assistance for commanders as they struggle to deal with the complexities associated with maintaining their troops' mental health. One of the most important findings of the Military Leaders Survey (MLS)[2] conducted by the working group was that most military leaders receive little or no specific training on dealing with mental health issues in subordinates, other than the same general stress education that unit personnel receive.

In the absence of leader-specific training, the booklet will provide an overview of the key issues of concern regarding mental health of unit personnel on deployment in order to support the general adjustment of troops across the deployment cycle, including the psychological response to traumatic events experienced on deployment. The goal of the symposium was to provide a forum for discussion of these key issues, to obtain feedback on the development of the booklet, and to actively engage operational leaders in the discussion of mental health issues associated with deployment. Many military forces provide general deployment-related stress education to their personnel, but the benefits of providing a standardised resource to NATO leaders will be enormous in terms of integrating the support provided to NATO forces on operations.

The next logical step being considered by the HFM executive is to develop more general NATO doctrine in the form of an Allied Joint Publication or comparable document on stress and psychological support on operations. While ambitious, the development of doctrine like this would be a quantum leap in the support provided to commanders in what is, arguably, the most vexing issue they face in maintaining the personnel component of their operational capability. Indeed such doctrine would provide a solid base for the provision of support to all elements of deployed military forces, not just commanders.

Among the most impressive aspects of the Symposium have been the contributions from so many nations working on similar topics. The nature of military operations and the effects that they have on military

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[1] The author would like to thank Lt Col Psy Yves Cuvelier and Dr Amy Adler for providing comments on an earlier draft of this paper.

[2] The MLS was a major collaborative undertaking of the HFM-081 RTO Task Group; Cawkill , P., et, al (2006) *The Military Leaders Survey: NATO Military Leaders' Perspectives on Psychological Support on Operations*. Paper presented at the NATO RTO HFM134 Symposium, Brussels, Belgium 24-26 April 2006.

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personnel overrides many of the cultural differences that exist between nations. The similarities among the research topics and services delivered is impressive and suggest that significant gains have already been made and could further be made from this level of international collaboration.

Another impressive and important aspect of the Symposium was the fact that it was co-Chaired by the task group that led the initial working group, HFM-081\ RTG, and the Military Psychiatry Working Group of the Committee of the Chiefs of Military Medical Services (COMEDS). The problem of operational stress and how to address it is complex and requires a multi-disciplinary approach with contributions from psychiatry, psychology, social work, and chaplaincy; however, the interaction between these groups has traditionally been plagued by misunderstanding, suspicion, and at times open hostility. To see the level of interaction between these disciplines at the Symposium is further evidence of the world-leading nature of the work being done by this group.

Finally, the organisation of the symposium on five separate tracks was a new feature for an RTO symposium, but something made necessary by the broad scope of the work being done in this area. Without such an organisation, it would have been impossible to adequately cover the key themes in the research in this area. These five themes (morale, psychological fitness, training, family support and psychological first aid) reflect the complex nature of the problems facing military mental health professionals as they try to assist commanders manage the stress of operations. For the "problem" of assisting commanders to maintain the psychological wellbeing of their troops across the deployment cycle is complex, multi-faceted and unique (in some way) to each deployment; it is a wicked problem.

2.0 WICKED PROBLEMS

The concept of the wicked problem is one that has been around for over thirty years.[3] It typically applies to problems involving people where the complexities of the issues involved and the breadth of stakeholders involved leads to the problems being unsolvable by traditional "linear" problem-solving models.

2.1 The Characteristics of a Wicked Problem

There are a range of characteristics that identify a problem as a wicked problem including:

- There is no definitive solution to a wicked problem; as you develop solutions for a wicked problem, you uncover further aspects of the problem.

- Since there is no clear definition of the problem, there is no stopping rule for solving a wicked problem. The problem solving process stops when you run out of resources.

- Solutions to wicked problems can not be either right or wrong, they can only be better or worse. So in our efforts to solve a wicked problem, we can never be completely right, but neither can we be completely wrong. Our aim is not to find "the solution" but simply to find ways to improve the situation.

- Every wicked problem is unique because of the broad range of factors that contribute to the nature of the problem. As a result there are no template, or "off-the-self", solutions available to a wicked problem.

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[3] Rittel, Horst and Melvin Webber (1973) "Dilemmas in a General Theory of Planning," *Policy Sciences* 4, Elsevier Scientific Publishing, Amsterdam, pp. 155-159. Also Reprint No. 86, The Institute of Urban and Regional Development, University of California, Berkeley, California.

- Every attempt at a solution to a wicked problem is a "one-shot" attempt that has consequences. You can't learn about a wicked problem without attempting a solution, and this will always have some consequence; for example, changes (or improvements) to the psychological screening process for deployment will have a consequence for those who are screened (i.e., some who might have been found suitable under the previous model might be found unsuitable under the new).

- Because wicked problems, by definition, involve people, those attempting to solve a wicked problem are not allowed to make mistakes in their attempts to solve the problem, because of the impact that the solution may have on other people.

- Finally, wicked problems are typically solved (as well as they can be) through group efforts[4].

2.2 Why Psychological Support to the Military is a Wicked Problem

Physical casualties have always been a concern for commanders because there is an immediate and observable effect on operational capability when a soldier is injured, not to mention the logistic resources involved in caring for that individual. And while complex, the problem is clear: soldiers will be injured, we can see the injury, they will be treated, and there will be a clear outcome of the treatment. Military medical research has focussed on improving the way we treat very clear cause and effect situations: how can we better control disease vectors to reduce the prevalence of illness, how can we improve fluid management during surgical procedures in an operational environment in order to improve the survivability of battlefield surgery. These are complex and very important, but essentially linear or "tame" problems.

The impact of psychological injuries, on the other hand, has received significantly less attention, and has really only become a major focus for military forces in the last two decades. There are a number of aspects of psychological effects of operations that makes it a wicked problem:

- The nature of the experience of modern military operations; the nature of the enemy, the role of the military (i.e., more of a policing role), and the exposures a soldier might experience (e.g., torture victims, refugees/IDP, mass graves) have changed and continue to change. As a result, the problem evolves continually and there is no single "solution".

- The stakeholders in military operations have changed significantly in terms of the involvement of the media and the concomitant increased scrutiny from the general population. Hence, there is a variety of valid perspectives on the "problem."

- As the stakeholders change, so too do the demands on military commanders, military personnel and military mental health professionals. Again, the problem evolves continually.

- The concept and definition of mental health, or psychological injury, is still unclear for large segments of the population, not least the military and so the nature of the problem is unclear.

- The research in this area is very new and at times very difficult to conduct, so as we provide interventions we learn more about the problem (e.g., the debate over Mitchell model psychological debriefing).

HFM-081\ RTG expands on the work of previous task groups, which focused on mental health, by emphasising psychological support to operational readiness. In part, this reflects the progress achieved in addressing mental health issues in general, but it also represents a fundamental shift in emphasis to

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[4] http://en.wikipedia.org/wiki/Wicked_problems

supporting psychological health in all aspects of the deployment cycle, and in particular the readiness of the military to respond to government requirements. It is also a very clear statement on the wickedness of the problem; as we begin to provide a solution to the problem, we discover further aspects of the problem.

2.3   Implications for the Military Mental Health Professional

Because it is a wicked problem, there are a number of implications for the military mental health professional. The key ones are:

- As we continue to uncover more about the needs of commanders and soldiers and develop programs to support them, we will find out more about the nature of these needs and the "problem" of providing this support.

- As a result, the "problem" of providing adequate psychological support to commanders and soldiers will never be solved, but there are certainly areas where it is possible to contribute to the solution, where we can make improvements

- The research and evidence base underpinning the provision of psychological support to commanders and soldiers must be of the highest quality possible given the limitations of our research methods.

- Military mental health professionals need to be prepared to respond to the unique needs of the individual commanders whom they support. Each will have different requirements whether because of the operation in which they are involved or the characteristics of their command.

- The result of collaborative efforts, such as the HFM134, are likely to be the best option for addressing the wicked problem of providing psychological support to commanders and soldiers.

3.0   THE ROLE OF THE MILITARY MENTAL HEALTH PROFESSSIONAL

3.1   Commanders' Expectations

The symposium's keynote presentation by MAJGEN Cammaert[5] articulates the expectations that commanders have of the support provided by military mental health professionals. He divided the types of support expected into three logical groupings: pre-deployment, during deployment, and post-deployment. This is the way commanders structure their mission. In all stages, there is a clear recognition that commanders bear the ultimate responsibility for the wellbeing of their troops, but that the military mental health professional has a very clear role in supporting the commander.

The importance of adequate pre-deployment preparation is emphasised by MAJGEN Cammaert; realistic training, good unit cohesion, and good communications between the commander and his subordinates, and in particularly within the command team, are all seen as fundamental factors in reducing the impacts of military operations.

The role of the military commander in dealing with the stressors during operations is clearly articulated by MAJGEN Cammaert: "Management of stress and the wellbeing of the soldiers in a unit is the ultimate responsibility of the Commanding Officer…"[6] He identifies two key elements of commander behaviour

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[5] MAJGEN P.C. Cammaert, (2006) "Stress and Psychological Support in Modern Military Operations: A Military Leader's Perspective" Paper presented at the NATO RTO HFM-134 Symposium, Brussels, Belgium 24-26 April 2006.

[6] Op cit, p 3.

that contribute to this during operations: leadership and attending to welfare. He also identifies that the role of the military mental health professional is to be the commander's expert on mental health issues and to provide expert advice on these issues. This perspective was reflected in the findings from the MLS. Military leaders see themselves as ultimately responsible for the psychological readiness of their personnel but expect to rely on military mental health professionals to support them in this.

3.2   Military Mental Health Professionals' Obligations to Commanders: Being the Expert

The military leader, exemplified here by MAJGEN Cammaert, has a set of expectations of the psychological impacts of operations on his troops and an equally clear set of expectations for how military mental health professional can assist him to do his job better. This is a critical support role for the military mental health professional, one that must be understood and embraced, if the needs of the commander are to be met. These then are the challenges for the military mental health professional:

- to be known and trusted enough that military leaders will seek his or her advice,

- to understand what the commander's perceived needs for psychological support are,

- to understand the commander's intent well enough to identify whether any gaps exist in the commander's perception of what is needed, and

- to understand his or her discipline well enough to know what can or cannot be provided.

The military mental health professional has an obligation to the commanders and their troops to be courageous enough to be the "expert", to tell the commander when something cannot be provided, and not to hide behind the limitations of the discipline. Military mental health professionals must be prepared to challenge the limits of their profession to support the commander's ability to sustain the unit's psychological well-being.

4.0   THE CURRENT STATE OF RESEARCH IN THE FIELD

If the military mental health professional is to challenge the limits of his or her profession, then having a sound understanding of the current body of knowledge in the field is fundamental to this. Fortunately, the symposium provided exactly this.

4.1   Review of the Field

Nearly fifty papers were presented at this symposium in ten workshops across five separate tracks: morale, psychological fitness, training and education, families, and psychological first aid. Each track presented a showcase of the programs and research that is being conducted in the each of these fields across the nations participating. Importantly, the tracks provide comprehensive coverage of the issues involved in the provision of support to commanders. In each track, the papers were presented in two separate workshops, each introduced with a short presentation on the findings of the MLS that were relevant to that particular track.

Track 1: Morale as a Predictor of Unit Effectiveness.

There were two workshops in this Track: Consequences of Morale on Unit Effectiveness and Stress; and Measuring Morale.

Papers in the first workshop looked at broad issues such as the measurement of unit effectiveness and the complex inter-relationships between cohesion, morale and stress in military units. Papers also included an

operational commander's first-person account about the importance of the mental health support his unit received and, in particular, the importance of the relationship between the commander and mental health professional. Finally, there was an examination of the role of positive psychology in influencing the impact that morale has on mediating the psychological effects of operations. The second workshop provided a number of papers that all examined ways to measure morale using a variety of techniques from survey tools supported by commander interviews to quite sophisticated statistical analyses.

Track 2/6[7]: Psychological Fitness: Individual Readiness across the Deployment Cycle.

The two workshops in this track examined Expectations and the Role of Military Leadership, and Monitoring Mission Fitness.

The first of the workshops opened with two papers that looked at psychological fitness from a commander's perspective. The first of these drew on the MLS to show that, while it is Commanding Officers who are responsible for ensuring the psychological fitness of their troops, the military mental health professional has a key role to play in supporting the CO. This workshop also saw a paper address one of the more important considerations in terms of our nations' ability to deliver operational capability, the deployment of reserve forces on operations.

In the workshop on monitoring mission fitness the focus was on the prevalence of stress-related illness in military units; PTSD in the first instance and more broadly based stress-related symptoms in the second. Interesting results in the second paper linking rates of combat stress and numbers of physical casualties reinforce the concept that combat stress is related to the intensity of combat experienced by soldiers. The final paper in this workshop explored one of the most important aspects of post-deployment screening: the most appropriate time to conduct screening. This paper identified a clear outcome in terms of the timing for post-deployment screening, with strong support among military personnel for enhanced post-deployment screening. The cost of this is an increased number of referrals for reasons that might be sub-clinical, but were none-the-less important to the soldier.

Track 3: Improving Operational Effectiveness through Training and Education on Stress and Psychological Support.

The first workshop in this track addressed Concepts and Visions in Training and Education. Presentations in this workshop covered topics ranging from the psychological aspects of operational service via a very comprehensive survey of Bulgarian Armed Forces personnel. The last paper in this group looked at whether current methods for stress training were adequate to prepare troops for modern operations.

The second workshop, Organisation and Effectiveness of Training and Education, included presentations on a broad range of topics. Papers identified a number of possible protective factors in individuals who were significantly stressed during a special forces exercise, and described the concept of stress used by the German military to structure their pre-, during-, and post-deployment training. Finally, there was a paper on the validation of the training program supporting one of the more successful peer support programs used by any military today, the Royal Navy's TRiM program in the UK.

Track 4: Provision of Family Support: Perceived Needs and Expectations

The two workshops in this Track addressed the Family Support Concept and Organising Family Support: Implementation and Outcomes.

In the first, papers examined social and family support arrangements across a number of different nations as well as the needs of families that had been adversely affected by the member's military service. The

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[7] Track 2 and Track 6 were combined before the start of the Symposium.

second workshop saw considerable attention paid to the outcomes of such programs, again across a number of nations and services. And a paper showed the importance of social networks for the experience of the military spouse and the likelihood of spouses accessing military-provided resources, as well as their apparent greater resilience to the pressures of service life (as it affected their opinions) than their active duty spouse.

Track 5: Psychological First Aid: What to do when things go wrong

The final Track included workshops on Early Interventions: Expectations and Benefits and Cutting Edge Early Interventions.

Papers demonstrated that military personnel generally feel that informal support networks are important and that those most affected by operations are more likely to be accessing formalised support mechanisms. In a similar vein, one paper described the success of integrating experienced clinicians with individuals who had experienced an adverse psychological consequence of their military service. Finally, the importance of integrating the military mental health professional with the military leader was emphasised.

Papers studying the effectiveness of a variety of trauma response models included an examination of debriefing models for post-deployment, peer-based models for trauma, and an account of one military force's experience with the use of traditional Critical Incident Stress Debriefing following aviation incidents. If there was a common theme among these models, it was the acceptance by military personnel of the need for some form of intervention post incident. Finally, one of the newest options for dealing with possible negative consequences of traumatic events, the use of virtual reality, was presented.

4.2   Observations on the Symposium Papers

One of the key features of the Symposium was the inclusion of dialogue sessions in each workshop. The purpose of these was to provide the audience in each workshop (military leaders, mental health professionals, and researchers) with a structured means of engaging in a dialogue on the topics discussed during the workshop. The Track Coaches[8] were invited to provide observations on the key themes emerging from these discussions.

Key issues emerging in Track 1 included:

- There is a broad range of factors that influence morale and the question is whether it is possible to measure morale objectively.

- Whether it is possible to develop a "toolbox" to assist commanders deal with morale; and

- What is the appropriate role for the military mental health professional in support of the commander, to advise the CO on courses of action, or simply to collect and report the data.

In Track 2/6 the key themes were:

- Who is responsible for psychological fitness: the CO, the individual, or someone else; and

- There is a need for psychological support before, during and after deployment.

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[8] The Track Coaches were junior psychologists from the military forces of the host nation, Belgium. These officers were all professionally trained, but relatively inexperienced in the area of military mental health support, so it was anticipated that they would bring a fresh view to the proceedings.

From Track 3 the main themes emerging were:

- There is a need for preventative measures; stress will always exist on operations so support needs to occur throughout the operational cycle.

- Leadership is critical because of the influence that commanders have on their troops, but there is still a need to train the leaders.

- There is good value in peer systems; it provides a level and type of support due to their shared experience that is very good.

The main issues emerging From Track 4 were:

- There are two different approaches to family support: bottom-up and top-down, both are different, but both are important.

- In most cases, the family will not require professional support, but is more likely to want resources: literature, educational materials, etc.

- Family support is required throughout the deployment cycle.

- The best way to determine the support required by families is to ask them directly.

Finally, the key themes from track 5 were:

- The effectiveness of the peer-support systems was discussed.

- It is important to not insist on helping, but rather to provide assessments and only intervene when absolutely necessary.

- It is important to reduce stigma and resistance to mental health support.

- All of the countries are wondering about the same things: Do we make a difference? How can we improve our work?

- All countries are using very similar responses for providing mental health support to their commanders and troops.

Despite the fact that the Track Coaches might be considered relatively inexperienced, they provide an accurate synthesis of the important themes from the Symposium. In particular, the themes of peer-support programs, the importance of engaging those to whom support is being provided, and the complementary roles of the commander and the military mental health professional require further consideration.

5.0   RESEARCH AREAS REQUIRING FURTHER CONSIDERATION

The span of research presented in this symposium was impressive; however, there are areas that either require further research, or that require a new research effort.

5.1   Basic Research

There are areas where there is a need for basic research in order to develop fundamental models that can help shape our understanding of the problem. In some cases, the work that has been conducted in the

general research community has not met the needs of the military commander. For example, the concept of "leadership *in extremis*" shows that, despite the existence of a considerable literature on leadership in the general community, there is a need to rethink the models of leadership that apply to life-threatening operational environments.

In other cases, the military environment is unique and there is simply little or no research done to meet the needs of the military. There is also a need for the further development of models of the psychological impacts of military operations on military personnel. These models need to be robust and flexible, accounting for some of the more complex aspects of the psychological impacts of operations. To develop a better understanding of the problem, there is a requirement for sound basic theory building and testing.

5.2   Applied Research

The need for basic research not-with-standing, there is also a requirement for real-world research that identifies and attempts to understand commanders' perceived and actual needs for mental health support (for the two may well be different). The MLS is an excellent example of this type of research; it is not research in the traditional sense, there is no hypothesis, there are no inferential statistics; but such research provides a good testable understanding of an important issue, in this case, military leaders' understanding of their needs for psychological support.

There is also a need to develop robust models for program evaluation in a military environment. There were a number of presentations in this Symposium which dealt with interventions that were already occurring. In many cases, this non-empirically based service delivery was driven by a need for a practical solution to an immediate problem. To be able to concurrently deliver a program while trying to understand some of the more fundamental aspects of the problem which the intervention is trying to address should be a priority for all nations sending their personnel into harm's way, and is an obligation that the military mental health professional has to the commanders and troops whom they serve.

5.3   Outcomes

There is a need to identify the mental health outcomes of military operations that are of concern to commanders and soldiers as well as those of interest to mental health professionals. An area of particular value is in the area of quality of life research. While many "clinical" researchers focus on symptoms, diagnostic category, or actual disability, there is a growing literature on the effects of mental health problems on the quality of one's life. The loss of productivity is one of the greatest costs associated with mental health problems. While methodologies for assessing loss do exist[9], they have been developed for the civilian environment; there is a need for the development of models of the effects of mental health problems on operational effectiveness.

The key is not so much in the development of outcome measures, but rather the operationalisation of these measures in terms that are meaningful to the military leader. It is easy to find measures of the outcomes: performance, discipline problems, retention rates, individual wellbeing and health (psychological, physical, and social). The question that must be addressed is how these outcomes affect operational effectiveness? While some might argue that the assessment of operational effectiveness is a command responsibility, if military mental health professionals are to know whether their work adds any value, they must know the costs associated with mental health problems in the military and must determine whether there is a reduction in costs associated with the interventions they provide.

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[9] See for example: Haby, M.M., et al (2004), *Assessing Cost-Effectiveness – Mental Health: Introduction to the study and methods, Australian and New Zealand Journal of Psychiatry,38*: 569 – 578. and Collins, D.J. and Lapsley, H.M., (2002), *Counting the cost: Estimates of the social costs of drug abuse in Australia in 1998-99.* Monograph Series no. 49 Commonwealth Department of Health and Ageing, Canberra, Australia.

Yet there is more to it than just an unemotional cost-benefit analysis; first, because it is a wicked problem, the provision (or otherwise) of mental health support has consequences for military personnel and we must know what these consequences are. Second, there is a clear expectation among military personnel that every attempt will be made to reduce the possible negative consequences of military service; it is part of the psychological contract that exists between the military and the young men and women who deploy in harm's way. It is also the "right thing" to do.

5.4 Specific Interventions

There are a number of controversial areas in which research needs to be conducted, in particular debriefing and screening.

Commanders expect screening to be conducted on their personnel both as a routine part of deployment support, and in support of specific incidents. Commanders expect screening to be able to identify potential mental health problems in their staff[10]. However, there has been some controversy about the effectiveness of the screening programs that have been implemented in the military[11,12]. While these have been responded to, it is important to measure the effectiveness (in a very broad sense) of this tool and to examine those measures that are most appropriate, including which process should be used for screening (timings, locations, should interviews be used as well as psychometric instruments, who should conduct the screening, etc). Given the widespread use of screening as an intervention, and the importance given it by commanders, monitoring its effectiveness and ways to improve the process are an imperative.

Post-deployment psychological debriefing developed out of the responses provided to critical incidents and is considered by commanders to be a vital tool in assisting them in managing the psychological effects of operations[13], However the application of debriefing has been complicated by its links to critical incident stress debriefing and the evidence that this type of debriefing is not effective[14]. Most nations have responded to these concerns and the models of debriefing presented in the symposium for the most part addressed these concerns. However, given the expectation for the provision of this kind of intervention by commanders and soldiers there is a need to investigate further.

5.5 Non-Psychological Interventions

While the emphasis of the Symposium was focussed strongly on the psychological effects of operations and the psychological support required to manage these effects, the complexity of the problem means that a broad view is needed. There is a need to examine the types of interventions available to primary care workers (general practitioners, nurses, para-professionals, e.g., medical assistants), chaplains, and social workers. While there was research from a social work perspective, particularly in Track 4, the impacts of family and social support on the psychological effects of operations, both before and after operations, are critical and warrant further study.

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[10] MAJGEN P.C. Cammaert, (2006) "Stress and Psychological Support in Modern Military Operations: A Military Leader's Perspective" Paper presented at the NATO RTO HFM-134 Symposium, Brussels, Belgium 24-26 April 2006, p4.

[11] Rona, R., Hyams, K, and Wessely, S. (2005) *Screening for Psychological Illness in Military Personnel*. Journal of the American Medical Association, 293, 1257-1260.

[12] Wright, K., Bliese, P., Adler, A., Hoge, C., Casrto, C., Thomas, J. (2005). *Screening for Psychological Illness in Military Personnel* Journal of the American Medical Association, 294, 42-43.

[13] MAJGEN P.C. Cammaert, (2006) "Stress and Psychological Support in Modern Military Operations: A Military Leader's Perspective" Paper presented at the NATO RTO HFM-134 Symposium, Brussels, Belgium 24-26 April 2006, p4.

[14] Rose, S., Bisson, J., Churchill, R. and Wessley, S.,(2006) *Psychological Debriefing for preventing post traumatic stress disorder (PTSD)*. The Cochrane Collaboration. John Wiley and Sons.

The effect of the commander on the stress experienced by troops on operations is also a critical area for research. The work being done on morale as a mediator of the psychological effects of operations indirectly examines the role that commanders can have in reducing (or increasing) the psychological effects of operations. Still, there is a need to examine the effects of commander behaviour directly. For example, the commander's role in helping troops understand their purpose and their actions is one aspect of commander behaviour that can directly affect the stress of operations, yet is little researched in a military context. Commanders have such an enormous impact on the wellbeing of their troops that the "intervention of command" must be a high priority for future research.

6.0   THE CONTRIBUTION OF MILITARY MENTAL HEALTH RESEARCH

Unlike the world of the laboratory researcher, military mental health research into how best to provide psychological support to commanders and soldiers does not follow an ordered and controlled process. It is far more common for a need to be identified and for an immediate solution to be sought by command. The mental health professional will develop a response to this need, a program or an intervention of some form in order to meet the commander's need. There might be little or no science to support the development of the response; often it will be based on good clinical experience.

As part of the implementation of the response, an evaluation should be built into the process and, if the mental health professional is far-sighted enough to build in the appropriate consent, the results of the evaluation may be able to be used to answer broader research questions about the provision of mental health support to commanders and troops. If the mental health professional is not so well prepared, then while some specific questions might be able to be answered, the opportunity to start to build a broader base of knowledge will be lost.

One might not be able to draw strong conclusions from applied research because of the "flaws", in a statistical or design sense, but the applied setting makes any conclusions stronger in terms of their reality and the likelihood that they will meet the commander's immediate needs. It is important that military mental health researchers do not hide behind the limitations of their science. We must recognise those limitations and provide advice that is appropriately qualified, but the mental health professional must be prepared to proffer advice.

Military mental health research is crucial in supporting the military mental health professional and, ultimately, the commander in this. Research must be as high quality as possible within its limitations but these limitations do not excuse the mental health professional from supporting the commander. For there are a number of psychological principles that are known that can form the basis of sound advice to commanders:

- training helps improve psychological readiness,

- operations are associated with a range of negative outcomes,

- most deployed personnel experience little or only transitory effects from their deployment,

- following difficult deployment-related events there is a risk of clinical and behavioural problems,

- service delivery needs to be made more accessible,

- stigma is an issue but CAN be shifted, and

- there are many types of early interventions that use the hierarchical nature of the military by being unit-based and by building on established strengths.

Military mental health professionals need to use these principles in conjunction with the best that military mental health research can offer and their clinical judgement to meet commanders' needs.

7.0   SO HOW DO WE DEAL WITH THIS WICKED PROBLEM?

There are a number of themes that emerged in dealing with the wicked problem of providing appropriate psychological support to deal with the stress of operations. These include:

- Military mental health professionals must be integrated with commanders. This was a key message of the Symposium and needs to be pursued. In particular, more work like the MLS needs to be conducted and there needs to be more work done on the efficacy of the "intervention of command".

- There is a need to understand the importance of aligning the words that are used by commanders and mental health professionals in order that communications between the two are clear: there is a need for doctrine, education, training, and the provision of targeted resources for commanders in this area.

- There is a clear demand by commanders for broad-based support across the entire deployment cycle; education, peer-support programs, screening, specific interventions and comprehensive family-support programs all require more research, particularly on how they might interact with one another.

- Military mental health professionals need to understand the fundamental principles of their discipline and be prepared to "be the expert" for the commander they support. They must be aware of the limitations of their discipline, but cannot hide behind them.

Finally, there is a need for continued joint research efforts in this area; for the provision of appropriate mental health support to commanders and troops is a wicked problem that requires a joint effort. The efforts of those represented at this Symposium are world class, but they do not provide THE solution. While there is no single solution, such efforts will continue to add to the solution and improve the support that we provide to the young men and women, and their commanders, who go in harm's way.